Claims

1.   Yarn clearer for cleaning out defects from a yarn, in the measuring head of which at least one yarn parameter is measured, wherein for the yarn parameter, cleaning limits are determined, the exceeding of which signals the presence of a defect in the yarn, for which purpose the measured values of the yarn parameter are compared with the cleaning limits and wherein intolerable defects are cut out from the yarn, characterised in that the yarn clearer is set up for cleaning effect yarn (1), which is formed from an alternating arrangement side by side of webs (14) and of effects (13) consisting of predetermined thickenings, in that at least one value of the yarn parameter is predetermined for webs (14) and for effects (13) of the effect yarn (1) and in that the cleaning limits of the yarn clearer (5) are adjusted such that they lie outside the predetermined value of the web parameter and outside the predetermined value of the effect parameter.

2.   Yarn clearer according to claim 1, characterised in that the cleaning limits are in each case dependent on whether the values are measured in the web (14) or in the effect (13).

3.   Yarn clearer according to claim 1 or 2, characterised in that the yarn clearer (5) is set up to implement yarn clearer functions, known *per se*, in such a way that at least one of the following defects is detected:
short thick location, long thick location,
short thin location, long thin location,
periodically recurring defects.

4.   Yarn clearer according to any one of claims 1 to 3, characterised in that the yarn clearer (5) is set up in such a way that, alternatively, either only defects in the web regions are cleaned out or only defects in the effect regions are cleaned out.

5.   Yarn clearer according to any one of claims 1 to 3, characterised in that the yarn parameter is the diameter of the effect yarn (1), in that the cleaning limits of the yarn clearer (5) are matched to at least one diameter value for the effect thickness and to at least one diameter value for the web thickness and in that the yarn clearer (5) compares the diameter values determined with the respective cleaning limits, which depend on whether the measurement takes place in a web region or in an effect region of the effect yarn (1).

6.   Yarn clearer according to claim 5, characterised in that the yarn clearer (5) is set up in such a way that it determines, over a predetermined yarn length, the average diameter values of the webs (14) and the average diameter values of the effects (13), and in that the determination of the average diameter values takes place at least at the beginning of the measurement.

7.   Yarn clearer according to either of claims 5 or 6, characterised in that the defect lengths are included in the determination of the cleaning limits.

8.   Yarn clearer according to any one of claims 5 to 7, characterised in that, to determine the average value of the web diameter D_{ST}, it initially forms an arithmetic average value of the yarn diameter from a predetermined length of

effect yarn (1) as the reference diameter, subtracts the reference diameter from the individual values of the yarn diameter and forms the average value of the web diameter D_{ST} as the arithmetic average value of all the negative differential values, which have been measured adjacent to other negative differential values.

9. Yarn clearer according to any one of claims 5 to 8, characterised in that the yarn clearer (5) is set up such that it determines the effect region in that the beginning of the effect (13) is defined by fulfilling a first criterion and in that the end of the effect is defined by fulfilling a second criterion, between the beginning and the end of the effect (13), a specifiable number of the largest diameters is determined, an arithmetic average value is formed from the diameters determined, which is specified as the diameter of the effect (13), and the region of the effect yarn (1) outside the effect (13) is defined as the web region.

10. Yarn clearer according to claim 9, characterised in that the diameter D_E of the effect (13) is formed as the average diameter value from the four largest diameters between the beginning and end of the effect (13).

11. Yarn clearer according to either of claims 9 or 10, characterised in that, considered as the first criterion is the exceeding of a limit diameter D_{GR}, which is greater by a defined amount than the average value of the web diameter D_{ST} and in that the exceeding lasts over a predetermined yarn length L_{v1} and in that, considered as the second criterion is the falling below of the limit diameter D_{GR} and the fact that the falling below lasts over the predetermined yarn length L_{v2}.

12. Yarn clearer according to any one of claims 1 to 11, characterised in that the yarn clearer (5) is configured in such a way that its cleaning limits are adjusted such that they lie outside the fluctuation width B_s of effect (13) and web (14).